Volume 134, Number 41

Friday, September 26, 2014

Phoebe Wang '17, in a photo uploaded to Facebook in March 2012.

# Barnhart announces period of reflection after death of Wang

'All doors open' response effort planned for Monday Chancellor Cynthia A. Barnhart (MITSO). Adam K. Boyles, the di-

**By Tushar Kamath** 

President L. Rafael Reif announced Tuesday the death of Phoebe Wang '17, who local media reported was found dead in her MacGregor dorm room. In response to her death, as well as the deaths of several other members of the MIT community in recent months,

PhD '88 and student leaders will call on the community to spend 15 minutes this coming Monday at noon to reflect on the effects of the recent

Wang was involved in a number of groups on campus; Reif's email to MIT said she was an active member of her dormitory as well as a flutist in the MIT Symphony Orchestra rector of MITSO, wrote, in an email to The Tech, Phoebe "was well liked and respected by our whole MITSO family. We are honored to have had her art with us, albeit too briefly."

According to Barnhart, Wang's death triggered "an outpouring of responses from students, staff, fac-

Phoebe Wang, Page 10

# **MIT libraries planning** major space renovations Large project will include Hayden redesign

By Daniela Ganelin

The MIT administration said it is in the early stages of planning major renovations of campus libraries, including Hayden (humanities and sciences), Barker (engineering), and Rotch (architecture and planning). Organizers have not yet decided specific details of the project, and are encouraging input from the community.

The multi-year, multi-million-dollar renovations will likely include reorganizations of Hayden and Barker libraries and structural changes to Rotch, according to Jeffrey Ravel, Chair of the Faculty Committee on the Library System, and Steven Gass, interim director of libraries. The project aims to make library spaces more useful for students and staff, and to improve the buildings' infrastructure.

According to Ravel and Gass, the centerpiece of the changes will be a redesign of Hayden Library. Spaces for both individual and group study, as well as classrooms, will be modified and expanded to better fit students' and instructors' needs. In order to facilitate interdisciplinary research, the engineering resources collection and the Geographic Information Systems laboratory in Building 7 might be moved to join the science resources already in Hayden. A cafe might be also added to "make this library more of a destination space," said Ravel.

Meanwhile, smaller-scale changes are planned for other library areas.

Barker Library will likely be emptied of



MELISSA RENÉE SCHUMACHER-THE TECH

Libraries, Page 11

Hayden Library will soon undergo renovations.

# Changes to sorority recruitment increase retention

The MIT Panhellenic Association (Panhel) announced that five of MIT's six sororities issued a total of 189 bids during this year's formal recruitment, the same number of bids as reported by The Tech last year.

"We... implemented a couple structural changes that I believe were quite beneficial to our recruitment process," Panhel President Yasmin C. Inam '15 said.

One of those changes included reducing sorority recruitment to three days instead of the traditional four, which led to a 7 percent increase in retention without decreasing the number of

Panhel also worked with MIT's orientation office to begin the newly-streamlined process one day early without interfering with freshman orientation.

This year's formal recruitment process was followed up by an informal recruitment kickoff, which begins the ongoing process of sororities attracting new members throughout the year. Alpha Epsilon Phi, which does not participate in formal recruitment, relies entirely on informal recruitment to attract new members.

Encouraged by this year's changes, Panhel looks "forward to continuing to grow and strengthen[ing] the Panhellenic community, and mak[ing] recruitment a valuable and enjoyable experience for interested women," Inan said.

-Navil Perez

# 'Shellshock' bug a massive vulnerability for BASH users

Bug leaves many Mac OSX, Linux users vulnerable

By Nicole Perlroth

Long before the commercial success of the Internet, Brian J. Fox invented one of its most widely used tools.

In 1987, Fox, then a young programmer, wrote BASH, short for Bourne-Again Shell, a free piece of software that is now built into more than 70 percent of the machines that connect to the Internet. That includes servers, computers, routers, some mobile phones and even everyday items like refrigerators and cameras.

On Thursday, security experts warned that BASH contained a particularly alarming software bug that could be used to take control of hundreds of millions of machines, potentially including Macintosh computers and smartphones that use the Android operating system.

The bug, named Shellshock, drew comparisons to the Heartbleed bug that was discovered in a crucial piece of software

But Shellshock could be a bigger threat. While Heartbleed could be used to do things like steal passwords from a server. Shellshock can be used to take over the entire machine. And Heartbleed went unnoticed for two years and affected an estimated 500,000 machines, but Shellshock was not discovered for 22 years.

That a flawed piece of code could go unnoticed for more than two decades could be surprising to many. But not to programmers.

Many of the commercial tools individual users and large corporations depend upon are built on top of programs that are written and maintained by a few unpaid volunteers in what is called the open-source community. That community, along with big companies like Google, adjusts and builds new things on top of older work. The Macintosh operating system, for example, is routinely updated, but it is built on top of older programs like Unix.

Sometimes there are flaws in that code. And over the years, the flaw becomes part of all sorts of products.

Fox maintained BASH — which serves as a sort of software interpreter for different commands from a user — for five years before handing over the reins to Chet Ramey, a 49-year-old programmer who, for the past 22 years, has maintained the software as an unpaid hobby. That is, when he is not working at his day job as a senior technology architect at Case Western Reserve University

Shellshock, Page 11

## **IN SHORT**

Add date is next Friday, October 4. Don't forget to officially add your classes by the end of that day. It is also the last day to change a subject to P/D/F or Sophomore Exploratory.

Wednesday is the final deadline for IAP externship applications. Check https://alum.mit.edu/students/ NetworkwithAlumni/ExternshipProgram for more information. All current students (including grad students) are eligible to apply.

The community picnic to honor ombusperson Mary Rowe is this Tuesday on Killian Court. All members of the MIT community are welcome to attend and celebrate her career at the Institute.

The UA Fall Festival is next Saturday, October 5. Featuring Kumail Nanjiani and Thomas Middleditch from HBO's Silicon Valley. Doors open at 7 p.m. Tickers are on sale at tickets.mit.edu.

The MIT Press Loading Dock sale is next weekend, October 4 and 5. Come take advantage of huge discounts on print literature both days from 10 a.m. to 6 p.m. in at the bookstore in Kendall square.

Send news information and tips to news@tech.mit.edu.

## **STEREOTYPICAL** ACTION

Your regular dose of explosions and courtesy of Denzel Washington.

ARTS, p. 6

## WHAT DOES THIS WORD MEAN?

The GRE hopes that you've brushed up on your vocab. FUN, p. 7

## IN AN ALTERNATE UNIVERSE

Not even technology will lead you to your degree. FUN, p. 7



## **DRIFTING LIKE A FISH DURING THE DAY**

Are you actually nocturnal, or just looking for a reason to procrastinate? FUN, p. 7

## **WOMEN'S TENNIS KEEPS PERFECT** RECORD

Engineers win 5-4 against Babson. SPORTS, p. 12

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# White House issues new regulations for dangerous biological research

The Obama administration Wednesday issued new guidelines intended to strengthen the oversight of federally funded biology research that could inadvertently produce bioweapons.

The new policy shifts the burden of finding and disclosing the dangerous aspects of research from the funding agency usually the National Institutes of Health — to the scientists who receive the grants and the universities or other institutions where they work.

The director of the NIH, Dr. Francis S. Collins, said the rules would "preserve the benefits of life-science research while minimizing the risk of misuse."

Critics who oppose dangerous research dismissed the new rules as weak.

The policy, a codification of draft rules issued in early 2013, does not take effect for a year - an aspect that was also ridiculed by critics, who argue that dangerous work, such as making flu viruses more lethal, has been allowed to proceed while federal officials debate how to regulate it.

—Donald G. Mcneil Jr, The New York Times

# Holder backing NY lawsuit over legal service for the poor

Attorney General Eric H. Holder Jr., who last year declared a crisis in America's legal-defense system for the poor, is supporting a class-action lawsuit that accuses Gov. Andrew M. Cuomo and the state of New York of perpetuating a system that violates the rights of people who cannot afford to hire lawyers. The lawsuit claims that public defenders in New York are so overworked and overmatched that poor people essentially receive no legal defense at all. It describes a system in which indigent defendants navigate courts nearly alone, relying on spotty advice from lawyers who do not have the time or money to investigate their cases or advise them properly.

Because of substandard legal aid, children are taken from their parents, defendants in minor cases are jailed for long periods and people are imprisoned for crimes for which they might have been acquitted, the civil rights lawyers who filed the lawsuit said. If the New York lawsuit succeeds, the state could be forced to take over the public-defense system, which is run by county governments. Such an outcome would also quite likely encourage similar lawsuits and, in turn, additional intervention by the Justice Department. The lawsuit, which was filed by the New York Civil Liberties Union, has been winding through the courts for seven years and is set for trial on Oct. 7. It names four counties as defendants.

-By Matt Apuzzo, The New York Times

# British police arrest 9 in antiterror sweep

A day after Prime Minister David Cameron pledged British support for the U.S.-led air campaign in Iraq, the counterterrorism police in Britain rounded up nine men suspected of having links to a banned Islamist group and searched 18 buildings across the capital and in the English Midlands.

The men were not identified by name, but news reports citing unidentified sources said they included Anjem Choudhury, an Islamic preacher and organizer who has frequently voiced radical views and was associated with the Al Muhajiroun group before it was outlawed in 2010.

Scotland Yard said the men, age 22 to 51, were arrested on suspicion of being members of, or supporting, a banned organization, said in news reports to be Al Muhajiroun.

-Alan Cowell, The New York Times

# New Harvard investment chief; Yale sees high returns

By Geraldine Fabrikant THE NEW YORK TIMES

As Harvard named a new management chief in its bid to improve the returns on its huge portfolio, Yale University reported Wednesday that its fund had earned a 20.2 percent return for the fiscal year, a big payoff for a strategy that was criticized in the wake of the financial crisis. The developments intensified the spotlight on the investment practices of the Ivy League colleges and the high stakes for their endowments.

The new manager at Harvard, Stephen Blyth, succeeds Jane L. Mendillo as chief executive of the Harvard Management Company, the university's investment arm. Harvard, which on Tuesday reported a gain of 15.4 percent for the fiscal year, still has the largest endowment, at \$36.4 billion. But it suffered significantly during the financial crisis and was forced to sell some assets, like private equity holdings, at distressed prices. Mendillo largely inherited those problems when she took over as chief of the endowment in 2008. But as its returns lagged those of many top universities, Mendillo announced recently that she would step down.

Yale, too, came under pressure during the financial crisis, leading to second-guessing of its strategy a heavy allocation to nonliquid assets, including private equity and real estate - while smaller institutions were reaping bigger returns by largely investing in public stocks and bonds. Nonetheless, Yale remains committed to the strategy, pioneered by its chief investment officer, David F. Swensen. And over the longer term, its results have been strong.

Its result for the fiscal year that ended June 30, which brings the fund's value to \$23.9 billion, outpaced the mean return of 16.2 percent for colleges and universities that have reported so far, according to preliminary estimates from Cambridge Associates, an institutionalinvestment adviser with a large number of endowment clients.

Yale's statement also noted that over 10 years, its average return was 11 percent, while domestic stocks had returned an average of 8.4 percent and bonds returned 4.9 percent.

For that same period, the average annual performance for 138 schools was 7.6 percent, according to Cambridge Associates.

If Yale and some of the larger endowments have done well, noted Daniel W. Wallick, an institutional investment strategist at Vanguard, they have had several advantages over smaller funds: larger staffs and more expertise, pricing power and better access to funds.

Of the larger endowments that have reported to date, Yale's has outperformed MIT's and Dartmouth's in the one-year returns; each posted a return of 19.2 percent. Harvard, once a leading endowment fund manager, lagged those rivals in the most recent year. The university has a unique hybrid approach to running the endowment funds: Some are managed internally and some are managed externally. There had been some speculation among endowment managers that Harvard might switch to a strategy that relied entirely on external managers. But the appointment of Blyth indicated that Harvard intended to continue on its existing

# Runner-up in Afghan vote strikes conciliatory tone

By Declan Walsh

KABUL, Afghanistan — The runner-up in Afghanistan's bitterly disputed presidential election, Abdullah Abdullah, struck a conciliatory note toward President-elect Ashraf Ghani Ahmadzai in a speech Thursday in which he confirmed that he would join the government as its chief executive officer.

Abdullah's public address, his first since signing a U.S.-brokered deal Sunday to end months of political deadlock, cleared up the ambiguity about his future role. And it was an open attempt to bring his supporters on board with a unity government amid worries that they might rebel against an administration led by Ahmadzai.

The political deal gave Abdullah the power to nominate the new chief executive officer - a post with powers roughly equivalent to a prime minister - but did not specify who would fill the position. There had been some speculation that Abdullah might name one of his supporters to the post so he could remain free to operate as a political opposition leader. But on Thursday, he was introduced as "the chief executive."

In his speech, Abdullah offered congratulations to Ahmadzai as Afghanistan's "future president."

In answer to a question, Abdullah asserted that he had little choice but to sign a deal with Ahmadzai. "Remember that it's very easy to resort to violence, but it has bad consequences," he said.

His supporters, many of whom waved Afghan flags, were more cheered by his promises for the incoming government, which he said would be "keenly at the service of all Afghan people." But while Abdullah promised to revitalize the ailing economy, which has been further weakened by the political crisis, he made no mention of possible peace talks with the Taliban, exposing a point of contention with Ahmadzai. Outside the hall, Abdullah's supporters appeared to be torn between indignation that their candidate had lost and relief that a destabilizing political battle had reached a peaceful resolution — at least for now.

"He is not a legitimate president," said Muhammad Yousaf, a 20-yearold student, referring to Ahmadzai. But, he added, "there was no other solution. Otherwise, the country would have fallen into crisis.

Abdullah acknowledged that the crisis had battered Afghans' faith in their nascent democracy.

"I have not forgotten those people who lost their lives, their fingers, when they voted," he said, in reference to voters who had a finger cut off by the Taliban because it was stained with ink that indicated they had voted. "I hold the pain and sorrow of those families in my heart."

# Beautiful warm weekend in store

By Casey Hilgenbrink

STAFF METEOROLOGIST

Yesterday, a coastal low pressure system just missed us as it passed offshore, bringing overcast skies and a cool northeast wind to Cambridge. Today will be warmer, with a high temperature of 70°F (21°C) and mostly sunny skies thanks to a high pressure system building in from the west. Expect north winds becoming northeasterly at around 10 mph.

This weekend, the broad high pressure remains in place, which should make for a beautiful weekend. We'll enjoy cloudless skies light winds, and unseasonably warm temperatures, with highs both days around 80°F (27°C). The normal high temperature for this time of year is 68°F (20°C), so be sure to get outside and enjoy the warm weather!

Our next chance for rain will be Monday as a cold front passes through the region. At this point, though, showers look unlikely. Monday should otherwise be pleasant, with a high temperature in the mid 70s°F (around 23°C) and mostly sunny skies.

## **Extended Forecast**

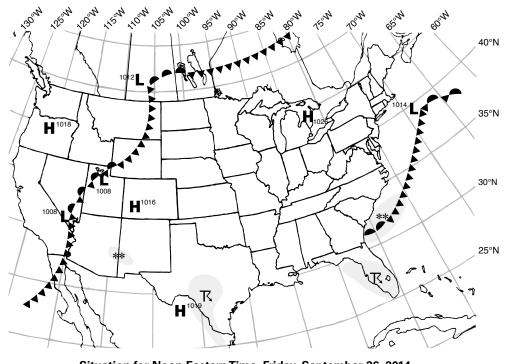
Today: Mostly sunny, with a high temperature of 70°F (21°C). North winds, becoming northeasterly in the afternoon, at about 10

Tonight: Clear, with a low of 57°F (14°C). East winds becoming northwesterly around 3 mph.

Tomorrow: Sunny, with a high temperature of around 79°F (26°C). Winds from the northwest at 2-5 mph.

Sunday: Sunny, with a high temperature in the low 80s°F (27°C). **Monday:** Mostly sunny, with a high temperature in the mid 70s°F

(around 23°C).



## Situation for Noon Eastern Time, Friday, September 26, 2014

Weather Systems	Weather Fronts	Precipita	recipitation Symbols		Other Symbols	
			Snow	Rain		Fog
High Pressure	Trough Warm Front	Showers	*	$\dot{\nabla}$	ス	Thunderstorm
Low Pressure		Light	*	•	$\infty$	Haze
8	▲▲▲▲ Cold Front	Moderate	**	••	Comp	oiled by MIT
§ Hurricane	Stationary Front	Heavy	**	·		orology Staff I The Tech

# Palestinian factions agree to resolve differences, leaders say

By Jodi Rudoren

THE NEW YORK TIMES

JERUSALEM — Leaders of rival Palestinian factions said Thursday that they had agreed to resolve their differences and allow the Palestinian Authority to return to the Gaza Strip so reconstruction could begin there next month.

Palestinian and Egyptian state news media outlets reported that the leaders of Hamas, the Islamist movement that dominates Gaza, and Fatah, the secular faction of the Palestinian president, Mahmoud Abbas, had made progress on the sticking points of their 5-month-old reconciliation pact, including the payment of duplicative government workers, security forces in Gaza and control of its crossing points. But they offered no specifics on any of these issues, and two officials from the Palestine Liberation Organization said Thursday's statements lacked substance.

"These rhetorics I have heard so many times," said one leader who is close to Abbas, speaking on the condition of anonymity to discuss the negotiations openly. "They reiterated once again the same agreement that they had in the past, with all the problems in that agreement. So I don't think there is a direct solution to the issue of the employees or the security or whatever."

The announcement in Cairo came a day before Abbas is scheduled to make his annual address to the U.N. General Assembly, where he plans to appeal for a new international approach to ending Israel's occupation of the West Bank and Gaza. It followed Egyptian-brokered talks this week both among the feuding Palestinian factions and with Israel regarding terms for a durable truce after this summer's bloody seven-week battle between Israel and Gaza-based militant groups led by Hamas.

This month, the United Nations announced that it had reached an agreement with the Palestinian Authority and with Israel to facilitate the reconstruction of thousands of homes and other buildings destroyed across Gaza, though officials said details of how and when had not yet been determined.

Israel, which considers Hamas a

terrorist organization and does not have direct dealings with it, has insisted that the Palestinian Authority must re-establish a presence inside Gaza before it will allow for any expansion of the crossings it controls to provide for the transfer of construction materials. Egypt, the United States and other Western powers have also pushed for increased Palestinian Authority presence in Gaza throughout the discussions of a cease-fire.

Mousa Abu Marzook, a Hamas political leader, said at a news conference in Cairo on Thursday that the sides had agreed to have the Palestinian reconciliation government sworn in June 2 oversee Gaza's crossings. Wafa, the official Palestinian news agency, quoted Marzook and Azzam al-Ahmad, the Fatah leader who has been coordinating talks with Hamas, both saying the new Palestinian government would soon take control of ministries in Gaza, and that a new committee would be formed to deal with the issues of employees, security, elections and reconvening the dormant Palestinian Parliament.

# Ferguson Police Chief offers apology to Brown's family

By Julie Bosman

THE NEW YORK TIMES

CHICAGO — The police chief of Ferguson, Missouri, issued a rare public apology Thursday for the death of Michael Brown, addressing the Brown family directly in a short video posted online.

"I want to say this to the Brown family. No one who has not experienced the loss of a child can understand what you're feeling," the police chief, Thomas Jackson, said, wearing a polo shirt and standing in front of an American flag.

"I am truly sorry for the loss of your son. I'm also sorry that it took so long to remove Michael from the street," Jackson said. "The time that it took involved very important work on the part of investigators who were trying to collect evidence and gain a true picture of what happened that day. But it was just too long, and I'm truly sorry for that."

Brown, 18, was shot to death Aug. 9 by Darren Wilson, a police officer, and his body was left in the street for about four hours, stirring outrage in the community. Wilson has not been charged with a crime.

"I'm also aware of the pain and the feeling of mistrust felt in some of the African-American community toward the police department," Jackson said. "The city belongs to all of us, and we're all part of this community. It is clear that we have much work to do. As a community, a city and a nation, we have real problems to solve."

Since Brown's death, Ferguson has been roiled by protests and anger over the circumstances of the killing. A grand jury has been meeting since late August to decide whether to indict Wilson. A decision is expected as soon as late October.

A lawyer for the Brown family, Anthony Gray, said in a text message that the apology "comes at a time when the trust and confidence in the chief has reached an irreversible low."

"It is nearly impossible to measure any reach of his apology at this time," Gray wrote. "Most observers, I believe, are locked into their opinions about the handling of the shooting of this unarmed teen."

# DHL to begin deliveries by drone in Germany

LONDON — In the world of drones, Europe is out to show that whatever the United States can do, it can do better.

That's the plan for Friday, when a small pilotless aircraft, or drone, owned by the German logistics company DHL is expected to take off and ferry medicine to Juist, a sparsely populated island off the northwestern coast of Germany. The flight — expected to take as long as 30 minutes, depending on weather conditions — would be the first time a drone without the aid of even a land-based pilot has been authorized for regular use in Europe, the company said.

Like Amazon, which is running tests in Canada, and Google, which is conducting tests in Australia, DHL is hoping its monthlong trial will prove that the technology — dubbed parcelcopter — can replace some of the traditional ways of delivering parcels to remote locations. Yet while Google and Amazon have outlined plans to potentially roll out their drone services across large areas, DHL said that it probably would not expand the trial across its global delivery network. Instead, the German logistics company said the drone technology could be used in special situations — in remote locations, for example — where it is more cost-effective to use an unmanned aircraft than to send a delivery van or a bike messenger. —Mark Scott, The New York Times

# Chrysler recalls 349,000 vehicles for faulty ignition switch

Chrysler announced Thursday that it would recall 349,442 vehicles worldwide for faulty ignition switches that could cause cars to suddenly turn off while driving, adding to the recent wave of automobile recalls related to ignition problems.

The latest recall affects 2008 vehicles, including the Jeep Commander and Grand Cherokee SUVs, earlier models of which were recalled in July for the same problem. The company is also recalling 2008 models of the Chrysler 300 sedan, the Dodge Charger sedan and the Dodge Magnum station wagon.

The problems are similar to the ignition defects identified in more than 16 million General Motors cars this year and in more than 1 million other Chrysler vehicles. The ignition switches in the latest group of recalled Chrysler models can rotate to the "accessory" or "off" position when jostled by a knee or bump in the road. Such a rotation can turn off power to the engine, disengage power steering and disable safety features like air bags.

Chrysler, a division of Fiat Chrysler Automobiles, said in a statement that it knew of one accident related to the defect, and that it had linked no deaths or injuries to it.

—Rebecca R. Ruiz, The New York Times

# Death toll in Xinjiang violence may be higher than reported

BEIJING — Violent clashes last weekend in Xinjiang, the western Chinese region, killed and injured a higher number of people than state media had reported, witnesses and Western news media have indicated in recent days.

Citing local officials and residents, Radio Free Asia, which is funded by the U.S. government, said Thursday that more than a dozen people were killed — including three police officers — and around 100 wounded in the violence, which took place Sunday in three towns in the southern county of Bugur, known as Luntai in Chinese.

On Monday, the Xinjiang government's Tianshan website said two people had been killed and referred to the incidents as "explosions."

—Dan Levin The New York Times

—Dan Levin, The New York Times



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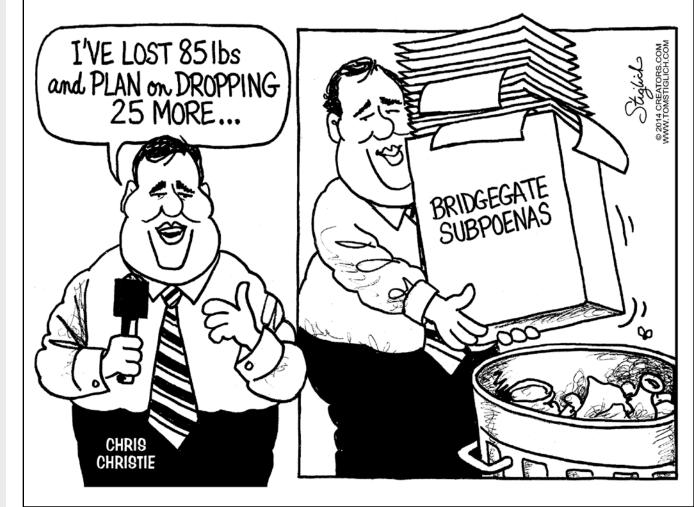
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## CORRECTIONS

In the Tuesday, Sept. 23 issue of *The Tech* on page seven, the center spread titled "2014 Fall Career Fair" had no attribution. The photographs on this spread were taken by Megan Prakash '18.

## **OPINION POLICY**

**Editorials** are the official opinion of *The Tech*. They are written by the Editorial Board, which consists of Chairman Annia Pan, Editor in Chief Austin Hess, Managing Editor Judy Hsiang, and Opinion Editor Jacob London.

**Dissents** are the signed opinions of editorial board members choosing to publish their disagreement with the editorial.

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# NFUNFUNFUNFUNFU

# Sleepy Sudoku

	9		1	3	8	6		
		3				5		
7		2					1	
		6	5		3			7
	7			4			6	
2			7		6	8		
	4					2		6
		7				1		
		8	2	6	9		5	

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

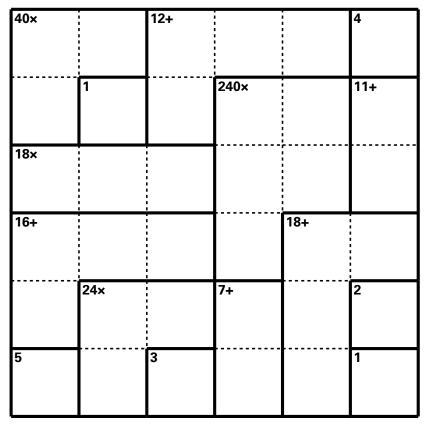
# Stressed Sudoku

Solution, page 11

4			5	6		3		
	6			3		2	5	
				9		8	<b>5 6</b>	
	5				3			
	<b>5 3</b>		4		8		1	
			2				3	
	4	1		8				
	2	6		<b>8 4</b>			7	
		5		2	9			6

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

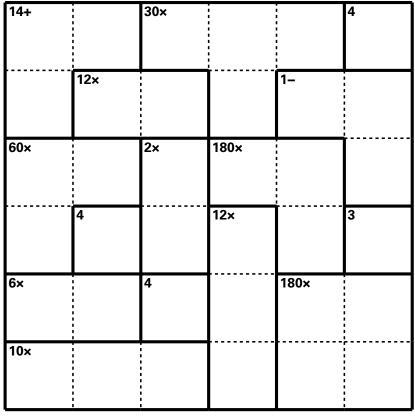
# **Tired Techdoku**



Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1-6. Follow the mathematical operations for each box.

# **Tense Techdoku**

Solution, page 11



Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1-6. Follow the mathematical operations for each box.

# In The Pond by Gail Grabowski

Solution, page 11

## **ACROSS**

- 1 Baseball hats 5 Aerosol, for example
- 10 Numerical fact, for short
- 14 Army division
- 15 What something costs
- 16 Voice-mail signal 17 Mexican money
- 18 Lariats
- 19 Hotel-room fee
- 20 Graceful plunges into pools
- 22 Make broader
- 23 Devoured
- 24 Makes illegal
- 25 Posh residence
- 28 End-to-end measurements
- 31 Makeup for cheeks
- 32 Needle tip
- 34 Lubricate
- 35 Very uncommon
- 37 Clinton's vice president

- 36 Used a vegetable peeler
- 38 CPR specialist 39 Ram of the zodiac

- 40 Free-for-all 41 Watered down
- 43 Social elite
- 44 Jealous feeling
- 45 Popeye and Bart Simpson 47 Paths to tollbooths
- 49 Stoop below, as a theater
- rope
- 53 Region
- 54 Person's strong point
- 55 Money in Italy
- 56 Soft-soled shoes, for short
- 57 Toward the center
- 58 Have a go \_\_ (try)
- 59 Jab with a finger
- 60 Birds' homes 61 Some bakery loaves
- **DOWN**
- 1 Small coffee containers
- 2 All over again
- 3 Leaning Tower city
- 4 Caveman's era
- 5 Pixie
- 6 Show to be true

- 7 Turn red, as tomatoes
- 8 Top poker cards
- 9 "Absolutely!"
- 10 Yo-yo part
- 11 Inedible mushrooms
- 12 Start a poker pot
- 13 Kid older than 12
- 21 Partner at a prom 22 Would like to have
- 24 Flex
- 25 Made a mistake
- 26 "Me, too!"
- 27 Snug-collared sweater
- 28 Isn't truthful
- 29 New staffer
- 30 lcy precipitation
- 32 Settled a bill
- 33 Mined rock
- 36 Hunter's quarry
- 37 Closes in on

- 43 Wild cards in poker
- 39 Off-road rides, for short
- 40 List with soups and salads
- 42 Anxious feeling
- 45 Goes right or left
- 20 25 | 26 | 27 29 | 30 34 35 38 41 48 50 51 52 56 57 58 59 60 61
- 46 Eight-piece band
- 47 Night-table light
- 48 Cowboy's ending for buck
- 49 Fully cooked
- 50 Required task
- 51 One of the Great Lakes
- 52 Goes bad
- 54 Shark appendage



**MOVIE REVIEW** 

# A good old-fashioned action movie

Washington and Csokas star in The Equalizer

The Equalizer is a new action movie by Antoine Fuqua.

Tara Lee
STAFF WRITER

With a gang of Russians, a fair amount of blood, and shot after shot of Denzel Washington in slow motion, *The Equalizer* checks off every stereotype for the action movie genre. Washington stars as McCall, a man with a mysterious past trying to return to a quiet life. When he finds out that a young girl, Teri (Chloë Grace Moretz), is brutally controlled by a Russian gang, McCall seeks justice in the form of violence. He must once again take up his role as "The Equalizer," punishing those who do harm.

The film's mellow beginning stereotypically highlights McCall's character as an average citizen, following him through his daily life at the HomeMart, his house, and the local diner. The gorgeous cinematog-

raphy highlights director Antoine Fuqua's eye for light and composition in the Boston-filmed set, with shots of the Boston skyline, the Charles River, and the MBTA. It's certainly a slow start, but it leaves the audience to question exactly what moment will make McCall snap to finally get the plot rolling.

Marton Csokas plays Teddy, the boss of the Russian gang, masterfully. Teddy radiates an insistent hunger for power over his fellow gangsters and the helpless women in his control. With a distinctive Cockney British accent and a tailored suit, Csokas' smooth-talking character exudes the sliminess of a sociopathic villain. Csokas gives a delightful performance, but his character is remarkably one-sided, with little to distinguish him from any other thriller movie bad guy.

Be prepared to look away if you're not one for blood and gore, as the film manages to make use of practically every type of violence throughout McCall's gruesome spree. Thankfully, the spurts of blood are pleasantly balanced with bursts of humor throughout the film.

With the exception of a few important names here and there, the movie itself is also simple enough that it could easily be followed without words. Straightforward and predictable, the plot is far from original, but it still built a few moments of intense suspense during the film. Nevertheless, stereotypical action movie elements are stereotypical for a reason: they engage the audience. Even though *The Equalizer* may have included just a few explosions too many, the two hours I spent watching weren't wasted — Washington skillfully

\*\*\*

The Equalizer

**Directed by Antoine Fuqua** 

COURTESY OF SONY PICTURES ENTERTAINMENT

Starring Denzel
Washington, Marton
Csokas, Chloë Grace
Moretz, and David Harbour

Rated R

**Now Playing** 

doling out revenge is reason enough to see the film.

We wear many hats at The Tech
Which will you choose?
email join@tech.mit.edu

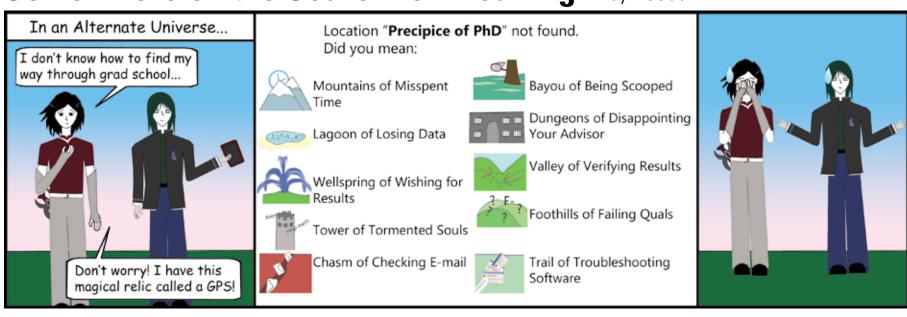
# BY ERIKA TRENT

COMMON GRE VOCAB* * TAKEN FROM ACTUAL STUDY GUIDES										
"To praise"	"To criticize"	High in morals	Lacking	j morals						
- accolade	- berate - execrate	- scrupulous	– artifice – charlatan	- overweeni - perfidy						
- laud	- castigate - lambaste	- probity	- depravity	- prevaricat						
	- censure - upbraid		- glib - ignoble	- superciliou - turpitude						
	- excoriate – vituperate		- ignominous	- venality						

TIP: IF YOU SEE AN UNFAMILIAR WORD ON THE GRE, IT PROBABLY MEANS SOMETHING BAD.

WWW.QEDCOMICS.COM

# Somewhere on the Search for Meaning... by Letitia Li

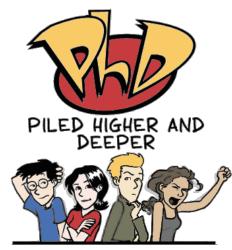


# UPPERCUT by Steve Sullivan

















WWW.PHDCOMICS.COM

by Jorge Cham

# 

# **Another Sudoku**

Solution, page 17

			9		5		7	8
5		3				4	9	2
			6	3		9		
3		9	7		8	5		1
		8		1	9			
7	9	1				6		3
8	4		3		6			

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

# **More Techdokus**

Solution, page 11

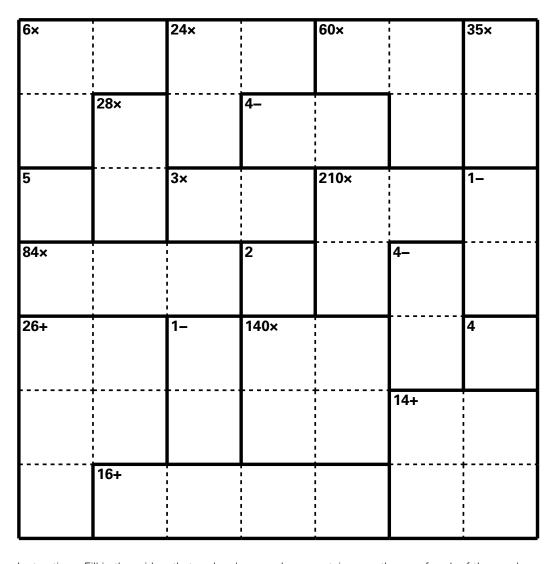
6×		90×		8×	
120×		<u> </u>	<b>-</b>	<u>5</u>	
1200					
ļ	7+		24×		2
36×	2×		20×	1	6
ļ		24×	<b>-</b>	15×	
	5		2×		3

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

# Damn, A years already. Damn,

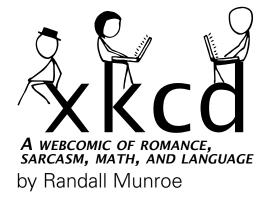
# **Lucky Sevens**

Solution, page 11

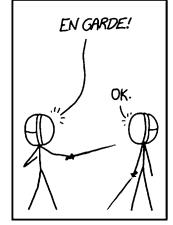


Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–7. Follow the mathematical operations for each box.

# [1424] En Garde

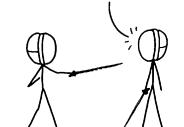


Actually, + is. You see, Kim, we live in a comic.



NO MATTER HOW LONG WE KNOW EACH OTHER, WHEN YOU ASK "WHAT ARE YOU THINKING,"

I WILL ALWAYS PAUSE BEFORE ANSWERING.





Touch!' 'Vope, I sighed and stared at you with resignation, so I regained emotional right-of-way.'

FRIDAY, SEPTEMBER 26, 2014 THE TECH 9

# Astronomers confirm contamination by stardust in detection of sky ripples

Criticism of BICEP's findings hold weight, reigniting conversations

**By Dennis Overbye** 

Stardust got in their eyes.

In the spring a group of astronomers who go by the name of BICEP announced they had detected ripples in the sky, gravitational waves that were the opening notes of the Big Bang. The finding was heralded as potentially the greatest discovery of the admittedly young century, but some outside astronomers said the group had underestimated the extent to which interstellar dust could have contaminated the results - a possibility that the group conceded in its official report in June.

Now a long-awaited report by astronomers using data from the European Space Agency's Planck satellite has confirmed that criticism, concluding that there was enough dust in BICEP's view of the sky to produce the swirly patterns without recourse to primordial gravitational waves.

We show that even in the faintest dust-emitting regions there are no 'clean' windows in the sky," the authors, led by Jean-Loup Puget of the Astrophysical Institute in Paris, wrote in a paper submitted to the journal Astronomy & Astrophysics and posted online Monday.

As a result, cosmologists like the BICEP crew cannot ignore dust in their calculations. "However," said Jonathan Aumont, another of the Planck authors, also from the Paris institute, "our work does not imply that they did not measure at all a cosmological signal. Moreover, due to the very different observation techniques and signal processing in the BI-CEP2 and Planck experiments, we cannot say how much of the signal they measured is due to dust' and how much to gravitational

So this is not the end of the story, both the Planck scientists and the BICEP group agree. But the original euphoria that the secrets of inflation and quantum gravity might be at hand has evaporated. Planck and BICEP are now collaborating on a detailed comparison

John M. Kovac of the Harvard-Smithsonian Center for Astrophysics, lead author of the BICEP paper, said the new report confirmed in greater detail the trend suggested by the first Planck papers in the spring, which indicated there is more dust even in the cleanest parts of the galaxy than anyone had thought.

Raphael Flauger of the Institute for Advanced Study in Princeton, N.J., who first raised the issue of dust in the BICEP report, said it confirmed what he had thought. "It doesn't leave a lot of wiggle room," he wrote in an email, "and it seems clear that at least the majority of the signal is caused by dust."

The gravitational waves may exist, although they would be weaker than the BICEP analysis indicated, causing theorists to reshuffle their ideas. As Richard Bond, an early-universe expert at the University of Toronto and a Planck team member, put it: "Planck showed that dust could possibly be the entire BICEP2 signal, but Planck alone cannot decide. We have to do this in combination with BICEP2.

The joint comparison and Planck's own polarization maps are due at the end of the year.If true, BICEP's detection of gravitational waves would confirm a theory that the universe began with a violent outward anti-gravitational swoosh known as inflation, the mainspring of Big Bang theorizing for the last three decades.

The disagreement over the BI-CEP finding will not mean the end of inflation theory; it just means it will be harder for cosmologists to find out how it worked. The BI-CEP group and an alphabet soup of competitors are soldiering on with new telescopes and experiments aimed at peeling away the secrets of the sky.

Michael S. Turner, a cosmologist at the University of Chicago, said: "This is going to be a long march, but the goal of probing the earliest moments of the universe makes it well worth the effort.

Dust is the bane of the existence of astrophysicists - and cosmologists. It is everywhere, and yet our understanding of it is very poor."

Others are less optimistic. Paul J. Steinhardt of Princeton University, a critic of the BICEP paper - and of inflation theory - said in an email that the BICEP paper should be retracted, "and we should return to good scientific

The BICEP observations are the deepest look yet into a thin haze of microwaves, known as the cosmic background radiation, left over from end of the Big Bang, when the cosmos was about 380,000 years old.

According to theory, the onset of inflation, less than a trillionth of a second after time began, should have left ripples in spacetime known as gravitational waves. They would manifest as corkscrew patterns in the direction of polarization of the cosmic microwaves.

The BICEP group — its name is an acronym for Background Imaging of Cosmic Extragalactic Polarization — is led by Kovac; Jamie Bock of Caltech; Clement Pryke of the University of Minnesota; and Chao-Lin Kuo of Stanford. They have deployed a series of radio telescopes at the South Pole in search of the swirl pattern.

Their most recent, BICEP2, detected a signal in the sweet spot for some of the most popular models of inflation, leading to a splashy news conference and a summer of controversy and gossip.

As the critics pointed out, things besides quantum ripples from the beginning of time could produce those swirls, including light from interstellar dust polarized by magnetic fields in space.

Planck, launched in 2008 to survey the cosmic microwave sky, can distinguish the characteristic signature of dust by comparing the sky brightness in several radio frequencies, as well as measuring its direction of polarization. BI-CEP2, in contrast, looked at only one frequency, 150 gigahertz.

The BICEP astronomers asked

for Planck data on their patch of sky, but it was not available until now because of suspected instrument problems, Aumont said. So they extrapolated from existing data to conclude that there was little dust interfering with their observations. The new Planck report has knocked the pins out from under that. But there are still large uncertainties that leave room for primordial gravitational waves at some level. For example, the Planck team had to extrapolate some of its own measurements.

As the Planck report says, "This result emphasizes the need for a dedicated joint Planck-BICEP2 analysis."

The group hopes this analysis will include data from the latest BICEP telescope, called the Keck Array, which has been gathering data for several months.

In an interview this summer, as he waited for the long-overdue Planck dust map to come in, Kovac said, "It's been a funny year to be in the spotlight like this."

He said the group stood behind its work, even if the ultimate interpretation of the measurements is up for grabs.

Acknowledging that would not be as sexy a discovery as ripples from inflation, Kovac said, "It's really important as an experimentalist that you can divorce yourself from an investment in what the answer is."

He went on: "One thing that would distress me bitterly is if a major mistake in the measurement or of the analysis would come to light. The most pressing question is, what are the dust contributions to the signal?"

Stay tuned.

Lyman Page, an astrophysicist, at Princeton, said the episode illustrated the messy progress of

'Taking a step back," he said by email, "it is amazing that a precise measurement of the cosmos can be made, discussed in fullness, and refuted by another measurement in such a short amount of time. It is testament to a healthy

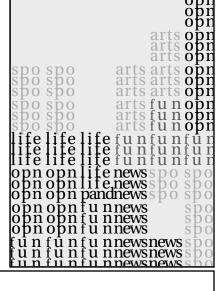
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# **ARMENIANS & PROGRESSIVE POLITICS**

2014: THE ROAD TO JUSTICE

# September 26 and 27, 2014

Massachusetts Institute of Technology, Cambridge, MA

Friday Plenary Session: 7:30 - 9:00 pm

— A CONVERSATION WITH —

# **Noam Chomsky and David Barsamian**

Intellectual and activist Noam Chomsky will be joined by Alternative Radio's David Barsamian in a discussion on contemporary Turkish politics, social movements, religious minorities and the Kurds.

Kresge Auditorium, MIT

Saturday Panels: 10:00 am - 6:00 pm

The Media: Creating a Narrative
Turkish-Armenian Relations: From Civil Society Exchanges to State Denial
Reparations for the Armenian Genocide
Closing Discussion: Where Do We Go from Here?

# Speakers include Peter Balakian, Ron Suny, Carla Garapedian, Tom Samuelian, and Bilgin Ayata.

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First public commemoration in Turkey of the Armenian Genocide, organized by the Human Rights Association of Istanbul on April 24, 2010 at the Haydarpasha train station, the location from which in 1915 Armenian intellectuals were denoted to the interior and killed.

# 'All doors open' time Monday following death of undergrad Time for reflection encouraged in

Time for reflection encouraged in wake of most recent student death

Phoebe Wang, from Page 1

ulty" asking what they could do to contribute.

Barnhart, along with Undergraduate Association President Shruti Sharma '15 and Graduate Student Council President John K. Nowocin G, will announce the "all doors open" period to take place this coming Monday at 12 p.m.

"The idea is we're asking everyone to open your doors, to really gather together, engage with others, and maybe if that's not what you want to do, just take the time to focus on private reflection," said Chancellor Barnhart.

Barnhart and student leaders view this time primarily as a symbolic statement. "This is our way of saying the community does care and we want to be there for each other and provide support to each other," she said.

Sharma added, "[I] think when we have a community doing this together, it only fortifies the message that we are a community... This is all for students." Nowocin pointed out that students deal with death in different ways and said the "all open doors" period is a product of brainstorming among the student leaders and Barnhart.

In addition to the "all open doors" effort, Barnhart, Chair of the Faculty Steven R. Hall ScD '85, Sharma, and Nowocin plan to announce the creation of a mailing address, we-are@mit.edu, for MIT community members to share insights from the reflection. The emails will be reviewed by both Hall and Barnhart.

Barnhart hopes that this system will provide her with ideas and identify people who are interested in helping out. "It's really important that the students are part of the solution," stated Barnhart.

When asked whether she would use the results of Chancellor W. Eric Grimson's PhD '80 2011 review of MIT's student support systems, Barnhart said that some ideas that were not yet implemented could be part of a longer process.

In their letter to the MIT community, Barnhart, Hall, Sharma, and Nowocin, write: "This pause for shared reflection is merely a beginning... we believe it is an important place to start a significant, long-term conversation for our community."

"In recent months we have lost too many of our cherished students and dear friends," Reif said in his letter this past Tuesday. Since March, Reif has emailed the MIT community with news of the deaths of four graduate students and Professor Seth Teller. Three of deaths have been ruled suicides. The cause of death of Austin Travis is still pending, according to the Middlesex district attorney's office.

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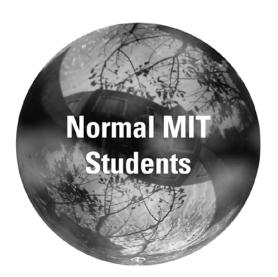
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FRIDAY, SEPTEMBER 26, 2014 THE TECH 11

# for several libraries

Plans include complete redesign of Hayden, other improvements

Libraries, from Page 1

traditional library materials to become a 24/7 study space, inspired by the success of a recent renovation of its reading room, according to an article published by Ravel and Gass in the most recent MIT faculty

Improvements to Rotch Library will include added group study spaces, structural changes to fix noise issues, and reorganization to make the limited-access collection easier to use.

Planners hope to take advantage of these programmatic changes to also make physical repairs. Richards said that the chief areas of concern are accessibility, facilities, and mechanical and electrical systems. Gass added that Hayden is "over 60 years old, and there's been no major infrastructure renewal."

Planning for the renovations began with a phase one report, produced in 2012, which provided general proposals for a restructuring of MIT's library system. MIT's chief space-planning body, the Committee for Renovation and Space Planning (CRSP), launched phase two last fall. This stage of the project will focus on producing specific plans and securing sufficient funding for the renovations.

The renovation process does not yet have a set timeline. "I think it would be fair to say it's going to happen over multiple years," said Gass. However, organizers are planning on "probably keeping an active building at the same time," according to Sonia Richards, program manager for Capital Projects Group, the body responsible for planning large-scale campus renovations.

The renovations' funding sources are similarly unclear. Currently, funds are promised from CRSP and from MIT 2030, the Institute's longterm planning initiative. Organizers are also seeking additional funding from the upcoming MIT capital campaign. The cost of the project, while still uncertain, will be sizeable. "I think it's in the tens of millions of dollars, but being more specific than that would not be fair or accurate at this point in time," said

Very few plans are set in stone, and the renovations' organizers are seeking input from the MIT community. Gass said, "To date, there has not been enough student engagement." A triennial library survey is scheduled for November. The survey will allow students, staff, and faculty to voice their opinions. Organizers are also planning to publicize the renovations through a website (launched this week at https:// libraries.mit.edu/future-spaces/), blogs, Twitter, and posters. Gass also stated there will be several focused sessions where students can discuss their views with the project's planners and architects.

Matthew J. Davis '16 is one of two undergraduate students on the Committee on the Library Systems, which also includes two graduate students. Davis wrote by email that he is "very excited to see the tremendous impact that the renovations will have on the quality of our community's scholarship and cohesiveness." Davis plans to gather feedback and keep students informed about the progress of the renovations through mailing lists, student meetings, and personal

Most students interviewed were not aware of the planned renovations. Sophie A. Geoghan '16, a library regular, had not heard about the plans, but supported many of the suggested renovations. "I like the idea of a [Hayden] cafe as long as it's kind of hidden," she said. Regarding the removal of books from Barker, she commented, "I've never used Barker as a library, only as a study space, so I think that would be fine." As for the renovations' effects on her day-to-day life, Geoghan said, "it would probably be annoying for a few years... but there's so many options for where to study that I think they can renovate without shutting down all the areas to study in."

Ryuga Hatano '18 also did not know about the planned renovations, but disagreed that they would be worthwhile. "It would probably be very disruptive... there's enough construction going on already," he explained. "I find the spaces adequate to my needs."

# Major renovations | Decades-old bug in BASH leaves many systems at risk Patch already released to treat "Shellshock" bug

Shellshock, from Page 1

Ramey said in an interview Thursday that he believed he inadvertently introduced Shellshock in a new BASH feature in 1992, although he could not be sure because back then he was not keeping comprehensive logs. Through the years, he maintained Bash by himself and occasionally bug reports would arrive in his email inbox.

On Sept. 12, he was contacted by Stephane Chazelas, another open-source enthusiast, about a potentially dangerous bug.

Chazelas discovered the flaw after finding a similar issue in another system a few months back. He tested the bug - which he called Bashdoor — against his own servers and looked for ways to detect and fix it.

Working with Ramey and people who work on open-source security, Chazelas had a patch within hours. Then they contacted major software makers while trying to avoid tipping off hackers.

An official alert from the National Institute of Standards and Technology warned that the vulnerability was a 10 out of 10, in terms of its severity, impact and exploitability, but low in terms of its complexity, meaning that it could be easily used by hackers.

Security researchers say that as soon as the bug was reported they detected widespread Internet scanning by "white hat" hackers most likely security researchers as well as people thought to be cybercriminals. The worry is that it is only a matter of time before somebody writes a program that will use Shellshock to take them over.

Researchers noted that it would be much easier for this to happen with Internet-connected servers than with a personal Macintosh laptop, because individuals would have to connect their laptops to a public network that hackers knew they were connected to in order to exploit the vulnerability.

Apple did not return a call seeking comment.

The Department of Homeland Security's Computer Emergency Readiness Team, US-CERT, advised users and technology administrators to refer to their Linux or Unix-based operating systems suppliers for an appropriate patch. For users at home, security experts advised them to stay abreast of software updates and check manufacturer websites, particularly for hardware like routers.

Even as some question the open-source community, its biggest advocates say the bug's discovery - even after 22 years - at least proves that programmers never stop trying to get things

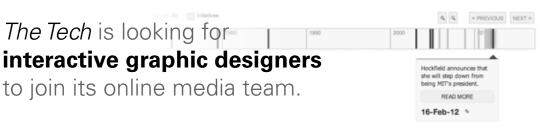
In an interview Thursday, Fox, the BASH inventor, joked that his first reaction to the Shellshock discovery was, "Aha, my plan worked."

After the Heartbleed bug was discovered last spring, the nonprofit Linux Foundation worked with major technology companies like Amazon, Apple and Google on the Core Infrastructure Initiative, an effort to identify and fund core pieces of open-source infrastructure. Contacted Thursday, Jim Zemlin, executive director of the Linux Foundation, said the initiative was contacting Ramey to see how it could help.

"I don't think this is an opensource problem," Zemlin said. "Software is eating the world. The bad news is software is hard and complex."

The mantra of open source was perhaps best articulated by Eric J. Raymond, one of the elders of the open-source movement, who wrote in 1997 that "given enough eyeballs, all bugs are shallow." But, in this case, Steven M. Bellovin, a computer science professor at Columbia University, said, those eyeballs are more consumed with new features than quality.

Quality takes work, design, review and testing and those are not nearly as much fun as coding," Bellovin said. "If the open-source community does not develop those skills, it's going to fall further behind in the quality race."



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## **Solution to Crossword**

CAPS UNIT S P R A Y P R I C E STAT ROPES PESO RATE SWANDIVESWIDEN EATENBANS ESTATE LENGTHS ROUGEPOINTOIL RARE PARED GORE EMT ARIES MELEE DILUTED JETSET ENVYETOONS LANES DUCKUNDER FORTEEURO AREA INNER MOCS NESTS POKE RYES

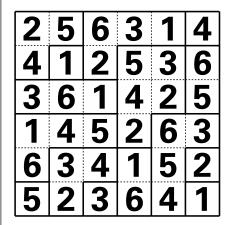
### **Solution to Lucky Sevens** from page 8

5 b 5 6 6 5 4 3 4 6 5

# Solution to Sleepy Sudoku

4	9	5	1	3	8	6	7	2
8	1	3	6	2	7	5	4	9
7	6	2	9	5	4	3	1	8
9	8	6	5	1	3	4	2	7
3	7	1	8	4	2	9	6	5
2	5	4	7	9	6	8	3	1
5	4	9	3	7	1	2	8	6
6	2	7	4	8	5	1	9	3
1	3	8	2	6	9	7	5	4

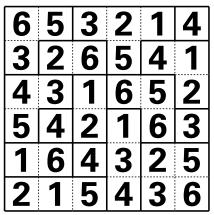
## Solution to Tired Techdoku



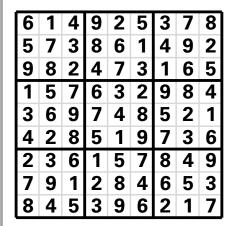
## Solution to Stressed Sudoku

4	8	2	5	6	1	3	9	7
7	6	9	8	3	4	2	5	1
5	1	3	7	9	2	8	6	4
6	5	4	9	1	3	7	8	2
2	3	7	4	5	8	6	1	9
1	9	8	2	7	6	4	3	5
9	4	1	6	8	7	5	2	3
3	2	6	1	4	5	9	7	8
8	7	5	3	2	9	1	4	6

# Solution to Tense Techdoku



# **Solution to Another Sudoku**



# Solution to More Techdokus

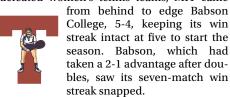
1	6	5	3	2	4
4	3	2	6	5	1
5	4	3	1	6	2
3	2	1	5	4	6
2	1	6	4	3	5
6	5	4	2	1	3

# MIT edges Babson, 5-4

# Engineers continue 5-game winning streak

**By Phil Hess** DAPER STAFF

In a New England Women's and Men's Athletic Conference (NEWMAC) battle of undefeated women's tennis teams, MIT came



Babson (7-1, 3-1 NEWMAC) picked up the first point of the day when its No. 3 doubles team of freshmen Kylie Kam and Jenny Ouenard took an 8-2 win. MIT (5-0, 5-0 NEWMAC) came back to even the match when its No. 2 pairing of Michelle M. Dutt '15 and Sonya A. Das '18 took an 8-4 decision. The Beavers then took a 2-1 lead into singles play in a closely contested match at No. 1 where senior Alex Freeman and freshman Yagmur Akgul defeated Elysa M. Kohrs '17 and Victoria Tam '17, 8-6.

Trailing by one, MIT came back in singles play with the first two decisions to take its first lead of the match. Cindy R. Liu '18 evened things up for the Engineers by taking a 6-3, 6-1 win over senior Alexis Ferraro before Dora R. Tzeng '18 gave MIT its first lead of the day, taking a 6-1, 6-4 decision over freshman Claire Foster.

Babson came back to retake the lead when Akgul took her No. 2 match over Tam by a final of 6-3, 6-4. MIT then came up with backto-back victories to put the hard fought match

in the win column for the Engineers. At No. 4 Wendi J. Kong '17 took a 7-5, 6-4 win over junior Tori Paolino. Das then scored the matchclinching point for MIT at No. 3 with a 6-4, 7-5 triumph over Quenard. The last match to be decided came at No. 1, which turned out to be the only singles contest to go three sets. In the battle between Kohrs and Freeman, it was Kohrs that took the first set, 6-3, before Freeman came back to take the final two sets and the match, 7-5, 10-6.

Both teams will take a break from NEW-MAC play this weekend to play at the ITA New England Championships. Play in the tournament, which is being hosted by Williams College, begins on Friday and wraps up on



Elysa M Kohrs '17 snaps a forehand at the MIT Women's Tennis meet against Babson College on Tuesday. MIT narrowly defeated Babson 5-4.

## **SPORTS SHORT**

# Joshua M. Wilson '18 selected as **NEWMAC Defensive Player of the** Week

For the second time in three weeks, the MIT men's soccer team received NEWMAC Athlete of the Week honors as freshman Joshua M. Wilson '18 was tabbed Defender of the Week on Monday. The accolade comes following a

successful week for the Engineers, who captured back-to-back contests against Emerson College and Roger Williams

Wilson capped the week with four goals - two in each contest. He located the back of the net from outside the box in each match, while also scoring on a penalty kick against Roger Williams and a free kick against Emerson. Wilson also recorded five shots, four of them directed toward net. He now ranks second on the team in

goals, but leads the squad in points with 13. MIT returns to action on Wednesday, September 24 when they travel to

Tufts University for a 4:00 p.m. kickoff.

-Phil Hess

## UPCOMING HOME EVENTS

## Saturday, September 27

Field Hockey vs. WPI Football vs. Salve Regina University Men's Water Polo vs. Fordham University Men's Soccer vs. Babson College Men's Water Polo vs. St. Francis College

Sunday, September 28

Men's Water Polo vs. Iona College

12 p.m., Briggs Field 1 p.m., Steinbrenner Stadium 3 p.m., Zesiger Center Pool 5 p.m., Steinbrenner Stadium 7 p.m., Zesiger Center Pool

10 a.m., Zesiger Center Pool

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